Date: Tue, 5 Jan 93 16:06:09 PST
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
Reply-To: Info-Hams@UCSD.Edu
Precedence: Bulk
Subject: Info-Hams Digest V93 #23
To: Info-Hams

Info-Hams Digest   Tue, 5 Jan 93   Volume 93 : Issue   23

Today's Topics:

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 5 Jan 93 21:56:42 GMT
From: news-mail-gateway@ucsd.edu
Subject: Format of Code Exams?
To: info-hams@ucsd.edu

Subj: Format of Code Exams?

No matter what kind of question is asked, the question writer can make it hard
or easy. I happen to like multiple-choice more than fill-ins if I'm taking;
but if I'm testing I like essay-type ('cause I like to find what out not only
how much has been learned, but how the "student" is thinking about the subject).
Questions can be designed so as to impose the maximum difficulty. Example:
"The QTH of the sending station is: (a) Beakmon, MT (b) Bankson, MO
(c) Burlson, NH (d) Dayton, MS." A "guesser" might have a hard time choosing
the correct answer, especially if the call sign number didn't match the area.

Fill-ins can be made tougher by requiring word answers that aren't commonly usedor are hard to spell, so that the "guesser" would have to copy THAT WORD exactly to get it right (even though he or she may have copied several words before and after it correctly).

I've heard it mentioned that tests should include real-life information. This is OK, except that it gives the person with an excellent knowledge of geography a decided edge (in the QTH case) over those who can't find Nebraska on a US map. Copying "MA___ON, WI" would allow the knowledgeable testee to reasonable conclude that the town is MADISON, although three of the 7 letters were missed.

No doubt about it, the 10-question test is, to me, far easier to pass than the one-minute solid copy. This is especially true when ordinary QSO-type messages are being copied. I once took Morse Code class as a requirement for an Army communications course. It was an 80-classroom-hour course and the minimum passing grade was 16 WPM. Five-letter groups, mixed letters, numbers and symbols. One-minute solid copy in a five-minute run. No guesswork here, folks! Knowledge of QSO content or geography or any other subject would have been absolutely no help. However, there was no way for the test-givers to steer the exam in any direction because they had no input at all. They simply compared your copy against the master.

I don't advocate going back to this kind of testing. I believe that Morse Code is an integral part of Ham Radio and should be learned; but not past the ability to meet international requirements. In the Army, a comm person might easily be assigned to a duty requiring the send/receive of Morse Code on a daily basis. Not so in this hobby. Those who get a lot of fun with it (as I do) can go on up to as fast as they want. So let's not confuse incentive stuff with exam requirements.

What should happen is for VEs to not let their feelings about the requirements to color their testing or grading criteria. This will only make matters worse than they already are. Such things as allowing the writing down of dots and dashes to count toward "copy" is just one example. Too bad there can't be a standard code message that everyone has to copy, and standard set of questions that everyone has to take. Then it all could be included in the back of the license manual and the testee could just memorize the whole message and just regurgitate it at the session. :)

73,
Dube AB5AP <dube@cpdvax.csc.ti.com>

Date: Tue, 5 Jan 1993 21:51:26 GMT
From: swrinde!cs.utexas.edu!csc.ti.com!tilde.csc.ti.com!m2.dseg.ti.com!ernest!cmptrc!carter@network.UCSD.EDU
Subject: How to calculate crystal freq for scanner?

To: info-hams@ucsd.edu

In article <1993Jan2.200922.19977@sequent.com> washer@sequent.com (Jim "Throw it over the wall" Washer) writes:
>I have a radio shack Pro-24 crystal controlled scanner..... (yep, poor me).
>It uses a 10.7MHz IF, and says to use third overtone crystals...
>
>So, am I correct in calculating the crystal fundamental as:
>
>F(fund)*3 + 10.7MHz == Receive Freq?
>

Ahoy, Jim!

   Actually, you won't have to work that hard at it. Most scanner crystals sold are assumed to be third-overtone series type. The bit about the third-overtone is generally assumed.

   The IF is generally irrelevant in figuring crystal frequency, provided you're using the radio for the frequencies it was designed for. [There are some "tricks" using the IF to receive out-of-band signals, but they perform so _badly_ that one is often better off buying a new radio].

   If you check with Radio Shack for your crystals, they will have a frequency stamped on the side indicating the frequency you'll be receiving if you plug it into one of their radios.

   If you go to a third-party manufacturer, you'll generally only be expected to specify what frequency you want to receive and the make/model of the radio you'll be using it in.

   If, on the rarest of occasion, they ask what "cut" you would like on the crystal, then you could tell them you want it optimized for third-overtone oscillation. However, if they ask that, they are probably talking about high-precision crystals which they will want several hundred dollars for, which you don't need for scanner.

   As a rule, stay away from used crystals. However, don't pass up any free give-aways just because they're used! Just don't waste your money.

Have fun with your 24!
--
Carter R. Bennett, Jr. - Scientist | "Oh my God! I _AM_ a nerd!!!"
carter@scilab.lonestar.org - home | - C. Bennett, Sept 25, 1992, after
carter@cmptrc.lonestar.org - work | realizing he had been talking about
KI5SR | "market availability of preconfigured Toll-House cookies."

Date: 5 Jan 1993 22:54:55 GMT
From: sun-barr!west.West.Sun.COM!l1-a!flloyd@ames.arpa
Subject: Info-Hams-Trash-Relay
To: info-hams@ucsd.edu

Would mister info-hams-relay@ucsd please get a grip on this
monster??? You're trashing the newsgroup at least twice a day
with this junk, wasting bandwidth and serving no purpose.

info-hams-relay MUST NOT relay bounced material back into the newsgroup.

Fix it. Please.

In article <9301051949.AA06942@lonestar.utsa.edu> info-hams-relay@ucsd writes:
>***** UNDELIVERABLE MAIL sent to sbooth, being returned by lonestar!sbooth *****
>mail: Error # 2 'Problem with mailfile' encountered on system lonestar
>
>Received: from ucsd.edu by lonestar.utsa.edu via SMTP (920330.SGI/920502.SGI)
>   for sbooth id AA06934; Tue, 5 Jan 93 13:49:39 -0600
>Received: by ucsd.edu; id AA27628
>   sendmail 5.67/UCSD-2.2-sun
>   Tue, 5 Jan 93 09:06:43 -0800
>Received: by ucsd.edu; id AA27511
>   sendmail 5.67/UCSD-2.2-sun
>   Tue, 5 Jan 93 09:06:11 -0800 for /usr/lib/sendmail -oc -odb -oQ/var/spool/
lqueue -oi -finfo-hams-relay info-hams-list
>Message-Id: <9301051706.AA27511@ucsd.edu>
>Date: Tue, 5 Jan 93 09:06:06 PST
>From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
>Errors-To: Info-Hams-Errors@UCSD.Edu
>Reply-To: Info-Hams@UCSD.Edu
>Precedence: Bulk
>Subject: Info-Hams Digest V93 #18
>To: Info-Hams@UCSD.EDU
>
>
>Info-Hams Digest   Tue, 5 Jan 93   Volume 93 : Issue   18
>
>Today's Topics:

--
[Fred Lloyd, AA7BQ   Fred.Lloyd@West.Sun.COM]
[Sun Microsystems,   Southwest Area Solaris Transition Manager]
[Phoenix, AZ   (602) 275-4242]

Date: 5 Jan 1993 23:11:33 GMT
From: ucsd.edu!brian@network.UCSD.EDU
Subject: Info-Hams-Trash-Relay
To: info-hams@ucsd.edu

Info-hams-relay winds up in my mailbox. The crap you're seeing in this newsgroup is the result of broken or poorly-maintained mailers that don't know enough to reply to the errors address, but instead insist on sending automatic notifications to the list address instead.

In other words, it's not my fault.

I have some filters in place, but with the burgeoning growth of broken mail software as people connect proprietary mail systems (most of them PC-based) to the internet, I suspect it's going to outstrip my ability to keep adding to the filters.

What I seriously suggest you do, is if you see such an article appear, you should
     1) write a note to the site involved and tell them they have
     a real steaming heap of s**t for a mailer
and
     2) forge a cancellation for the message so others don't have
     to put up with mail pukes.

I'm doing both of these, but sometimes they get away from me. We all can help.
     - Brian

Date: 5 Jan 1993 22:38:48 GMT
From: sun-barr!west.West.Sun.COM!l1-a!flloyd@ames.arpa
Subject: Manufactures service.
To: info-hams@ucsd.edu

In article <14194@pogo.wv.tek.com> tcmaint@pogo.wv.tek.com (TeleCom Maintenance) writes:

>Netters,
>   In the past people have made verious comments on Icom, Kenwood, >and other manufacturer's service of their equipment. No one had much >experience with Yaesu so I thought I would let you know my latest exper->ience with them.

Well as many who know me can attest, I'm no Yaesu fan. I used to be in consumer electronics repair so thats the basis of my comments

that follow.

>On or about November 23 I sent the rig to Yaesu service center in
>Cerritos, Calif. Approximately Dec.8 I called Yaesu to find out what
>was what and they told me the rig had arrived but no technician had
>been assigned yet. Dec.16 approx. I called again and it had been given
>to a technician but `wait a couple of days so the technician can
>identify the problem and give you an accurate quote'. No problem. Just
>seems to be taking a long time.

Well, you did send it out on Thanksgiving. Would'a taken a day or
two extra to get there. From the description it looks like their
shelf has about a two week backlog - not good but not unusual. It's
not like they can hire additional people to fill unexpected demand.
I'm sure that at other times of the year the shelves are nearly empty.
You were probably unlucky to send it in when you did. My conclusion:

Always call to get a time estimate before you send it.

>About Dec.21 Yaesu called and give me a quote of $283. I said that was
>too much and send the rig back too me and I would fix it myself. I then
>talked to the parts department and ordered the parts quoted to me at
>$71.83. The parts arrived with a price of $31.83, not $71.83 as quoted
>in the bill. The next day I got a letter from Yaesu quoting $200.83
>for the price($71.83 parts) of repair. Did I misunderstand them? I
>don't know for sure but it seems to me they repeatedly said $283 over
>the phone when I talked to them.

Who's on first? I Dunno's on second, etc... Either they mis-spoke or
you misunderstood. It happens.

>Waiting for the rig to arrive. On Dec. 29 or 30 I called to see if the
>rig had been sent. Oh no here it is on my shelf waiting for me to make
>out the paper work!!!!!!! What, I told you on the 21st to send the rig
>back. Oh, yes but.... Will you send the rig back to me now. Yes, right
>away. COD? Yes. OK, now give me your superivisor. He is busy on the
>phone right now. Here is my number, have him call me. Two hours later I
>left the house since I wasn't going to wait on them. Never heard a word
>from them.

The supervisor was probably explaining to some other customer that
it's been a busy season, several people have taken vacations, some
needed extra time off, etc. There's also been a lot of flu
sickness lately. Heck, our company shuts down completely between
Christmas and new year. I pity those poor bastards who only get
one day off. Lighten up, they deserve a break once in a while.

>It is now January 5, 1993 and I am still waiting on Yaesu to
>get my rig back too me. You gather your own conclusion. Sent in
>on November 23. Not back yet on January 5.

Yes, it's been too long. But consider the following sceneario:

There's been a lot of FT-1000's and 990's coming in lately, both for repair and for factory recalls. Factory recall service work pays the best, since it's usually a flat rate and the procedures are cut-and-dry. Let's get to 'em boys!

Yes, not an excuse, but a possible reality.

>Oh, by the way. Judging from the two ICs, one varactor, one
>variable capacitor, one crystal and one relay I would say the
>technician didn't really know what part was bad and planned to shot gun
>the problem. Not completely with- out justification judging by the
>problem. When I work on it I figure starting with the two ICs and the
>varactor. I'll go from their although I probably will use my heat gun
>and cold sprey with a straw to isolate it better.

Yes their is some justification in a shotgun approach to arrive at a quote. First, you ask them for an estimate which takes them an indeterminate amount of time - the guy may have spent hours on it. In most cases the factory techs work from the service manuals just like you and I do. There are no handy factory made rig analyzers which figure this stuff out, the technicians do it the old fashioned way - they probe around and make experienced guesses.

If the tech was smart then he isolated the problem to a fundamental block and stopped there, quoting the price of the most expensive components in that area to cover his butt. Later, he can adjust the bill - downward if necessary - when the job is done.

In this case, however, you told them NO, the price is too high - send it back. Nevertheless, you then take the fruits of their diagnosis and order the parts which they spent time and effort selecting. Not very fair if you ask me. They'll do it, however, because you might buy an FT-1000 someday, and because they'll catch hell from management if they're not real polite to you.

>I really hate to give up on Yaesu because I have allways liked their
>tranceivers. Better than Kenwood or Icom but it is only an ergonomic
>personal thing with me. I allways found them more logical for my

>operation. SSB for what it is worth. And their receivers were allways
>hot. But now I will be looking at the other manufacturers more
>seriously.

I wouldn't give up on them so quickly. If you like their products then
buy them. If you have to use their service a lot (and if they're any
good you shouldn't), then I'd agree that it's time to reconsider.

--
[Fred Lloyd, AA7BQ   Fred.Lloyd@West.Sun.COM]
[Sun Microsystems,   Southwest Area Solaris Transition Manager]
[Phoenix, AZ   (602) 275-4242]

Date: Tue, 5 Jan 1993 22:37:07 GMT
From: telesoft!garym@uunet.uu.net
Subject: NASA Project Dante & Compressed Video?
To: info-hams@ucsd.edu

In <01GT47Y1CA0G8WVYPA@TSU.BITNET> PORTER04%TSU.BITNET@cunyvm.cuny.edu writes:
>   I was watching the news around New Year and saw the reports
>from MT. Erebus, Antartica. The video from there was rather strange
>looking, as though it was being compressed in the extreme(looked
>like only movement was being updated per frame). What I'm wondering
>is, what method of compression was being used.

It looked like it was a slow frame rate, perhaps 5-10 fps instead of the
usual 30 fps.

>Also what comm system
>was used to get the video back so quickly. I am told that use of
>DOMSATS in equatorial orbit is not possible, maybe INMARSAT?

They had a uplink/downlink thru one of the NASA TDRS satellites which is in
equatorial orbit.
--GaryM

Date: Tue, 5 Jan 1993 22:39:00 GMT
From: sdd.hp.com!hpscit.sc.hp.com!icon.rose.hp.com!greg@network.UCSD.EDU
Subject: Need a 3rd hand for Soldering!?
To: info-hams@ucsd.edu

This is great! Each response to your request has a higher-tech solution than

the previous one.

How about a low-tech answer... I've always just grabbed a bit of tape and attached the thing to the workbench.

Greg KD6KGW

Date: Tue, 5 Jan 93 23:18:00 GMT
From: swrinde!zaphod.mps.ohio-state.edu!uwm.edu!rpi!gatech!news.ans.net!nynexst.com!adam@network.UCSD.EDU
Subject: Wideband VHF/UHF Rx Antenna Info Wanted
To: info-hams@ucsd.edu

  A friend is shopping for a wideband receive antenna. He's familiar with the discone but he's interested in learning about other available designs. For instance, there are apparently several "active" antennae offered by Diamond, Comet, and Austin. (I assume that the term "active" implies a preamp). If you have suggestions regarding these or other wideband receive antennae, he'd really appreciate hearing what you have to say. Email to me (adam@nynexst.com) and I'll forward your comments.

 -Thanx
  -Adam (N2DHH)

Date: 5 Jan 1993 22:45:06 GMT
From: sun-barr!west.West.Sun.COM!l1-a!flloyd@ames.arpa
To: info-hams@ucsd.edu

References <1993Jan2.133936.1@ttd.teradyne.com>, <1993Jan04.042255.17643@ssc.com>, <1993Jan5.170932.18381@ke4zv.uucp>un.COM
Subject : Re: 430mhz band under th

In article <1993Jan5.170932.18381@ke4zv.uucp> gary@ke4zv.UUCP (Gary Coffman) writes:
>In article <1993Jan04.042255.17643@ssc.com> tad@ssc.com (Tad Cook) writes:
>>In article <1993Jan2.133936.1@ttd.teradyne.com> rice@ttd.teradyne.com writes:
>>>Read what I wrote. You don't HAVE to DO anything. But if you don't want
>>>the station to be repeated, you have the right to not do so.
>>>
>>
>
>Coordination is a *voluntary* cooperative effort among repeater
>owners to minimize mutual interference. Coordinators have *no*

>legal standing to assign frequencies, in fact exclusive frequency
>assignments are specifically prohibited by 97.101(b) "No frequency
>will be assigned for the exclusive use of any station." Coordinators
>can only *recommend* frequencies to be used by stations in repeater
>operation.
>

True. Case in point: If you find a frequency which is not
occupied and put up a repeater on it, and then the coordinating body
says "You can't do that!", you can tell them to take a hike. They
have to demonstrate that you're interfering before there's any
case. And even then, they have to cooperate with you.

Needless to say, you may be right but you may not win any friends
along the way.

-fred

--
[Fred Lloyd, AA7BQ   Fred.Lloyd@West.Sun.COM]
[Sun Microsystems,   Southwest Area Solaris Transition Manager]
[Phoenix, AZ   (602) 275-4242]

Date: 5 Jan 1993 22:04:58 GMT
From: usc!cs.utexas.edu!tamsun.tamu.edu!cs.tamu.edu!kurt@network.UCSD.EDU
To: info-hams@ucsd.edu

References <1993Jan5.144017.16475@ke4zv.uucp>, <1ice33INNopu@network.ucsd.edu>,
<1993Jan5.211735.11844@ultb.isc.rit.edu>
Subject : Re: Who do repeater coordinators represent?

In article <1993Jan5.211735.11844@ultb.isc.rit.edu>, cep4478@ultb.isc.rit.edu
(C.E. Piggott) writes:
|> Sounds neat, I'd like to hear more about these potential trunked ham
|> experiments. It'd be nice if someone would post a description of
|> these trunking systems in commercial use (how they acquire a free
|> channel, when they give that channel up, how a receiving radio knows
|> that it's group is on a particular channel, etc.)
|>
It'd never work. Some bozo would exercise his rights and start a simplex
conversation on the admin channel....

I'd like to score the description of that myself.

--
Kurt Freiberger, wb5bbw kurt@cs.tamu.edu 409/847-8607 fax:409/847-8578

Dept. of Computer Science, Texas A&M University DoD #264: BMW R80/7 pilot
"We preserve our freedom using three boxes: ballot, jury, and cartridge."

Date: 5 Jan 1993 22:03:14 GMT
From: usc!cs.utexas.edu!tamsun.tamu.edu!cs.tamu.edu!kurt@network.UCSD.EDU
To: info-hams@ucsd.edu

References <eNTRwB1w164w@ham.almanac.bc.ca>,
<1993Jan4.144520.19597@ultb.isc.rit.edu>, <C0ECw9.or@tegra.com>
Subject : Re: Who do repeater coordinators represent?

In article <C0ECw9.or@tegra.com>, vail@tegra.com (Johnathan Vail) writes:
|>
|> I don't see either of your points as being problems. In fact if it
|> were to become a problem then it just points out the need for *more*
|> digital repeaters.

Amen!

|> Getting back to the original topic we can discuss the problems of
|> getting coordination since the repeater coordinators consider it
|> packet and not eligible for the same protection as their repeaters.

True. Coordinators have the attitude "if it buzzes, we don't do it."
However, as a wise person observed, "Packet people don't know s**t about
radios; Radio people don't know s**t about packet." In the general case,
regrettably true. Packet folks aren't experienced enough to deal with
coordination lore. AND they don't consider full-duplex regenerators
(aka packet repeaters) as repeaters, because some of the bits get changed.
They really don't but that's a nit. I maintain that there is a signal
that is being received, and the information is being retransmitted in
real-time. THAT's a repeater, and coordinators should be able to
coordinate those, because it's the case that the frequencies need to be
(Oh Gawd, they'll pounce on this...) "protected" by coordination.
Simplex (standard digipeating) packet systems should NOT be coordinated,
at least in terms of spectrum. Packet groups, if they are stupid enough
to get into it, should coordinate that. There's coordination, then there's
coordination.

In the pure sense, repeater coordinators should not represent ANYBODY.
They are a central, neutral, organ that should be used to COORDINATE
the usage of spectrum, under the "accepted standards". The group that
decides the "accepted standards" consists of the folks that represent
whatever factions that obtain. Rather like the Geneva Convention, I'd
venture.

Vox Populi, Vox Dei - Latin for "How did we get into THIS mess?"
..Name that author...

--
Kurt Freiberger, wb5bbw kurt@cs.tamu.edu 409/847-8607 fax:409/847-8578
Dept. of Computer Science, Texas A&M University DoD #264: BMW R80/7 pilot
"We preserve our freedom using three boxes: ballot, jury, and cartridge."
*** Not an official document of Texas A&M University ***

Date: Tue, 05 Jan 93 00:07:33 GMT
From: psinntp!newsserver.pixel.kodak.com!laidbak!tellab5!balr!ttd.teradyne.com!news@uunet.uu.net
To: info-hams@ucsd.edu

References <1993Jan02.061920.7115@ssc.com>, <1993Jan2.133936.1@ttd.teradyne.com>, <1993Jan04.042255.17643@ssc.com>
Subject : Re: 430mhz band under th

In article <1993Jan04.042255.17643@ssc.com>, tad@ssc.com (Tad Cook) writes:
> In article <1993Jan2.133936.1@ttd.teradyne.com> rice@ttd.teradyne.com writes:
>>In article <1993Jan02.061920.7115@ssc.com>, tad@ssc.com (Tad Cook) writes:
>>> In article <1992Dec30.114623.1@ttd.teradyne.com> rice@ttd.teradyne.com writes:
>>>>
>>>>That's not what I said. What I said was that any Ham has the right by law
>>>>to transmit on any frequency for which he is liscensed. Period. The repeater
>> ----------
>>>>operator has the right to turn off the machine. Period.
>> ----------
>>>>
>>>
>>>
>>> Let me see if I have this straight (!)..... :)
>>>
>>> I get my 440 MHz link set up, and get a coordinated frequency from
>>> the local coordination council. Everything works fine, until one
>>> day YOU show up and start transmitting there.
>>>
>>> And *I* have to turn off my gear??
>>>
>>> I don't think so!
>>>
>>Read what I wrote. You don't HAVE to DO anything. But if you don't want
>>the station to be repeated, you have the right to not do so.
>>

>>But if the frequency is not in use at the time you have no exclusive right
>>to say who can or cannot transmit on that frequency. And nothing in part
>>97 implies that you have that right.
>>
>
> Nope, you're wrong. Otherwise, why would we need coordination?
>

Would you care to cite chapter and verse where part 97 says that anybody
but the FCC can deny use of any frequency simply because they have a radio
receiver on that frequency ? Have you actually read a rule that says that
party A can prohibit party B from using a frequency at any time, soley because
party A has a repeater sitting on that frquency even if it's not in use at the
time ? If you have I'd sure like to hear about it (and so would the commission,
I think).

   John Rice   K9IJ
   rice@ttd.teradyne.com

Date: Tue, 05 Jan 93 22:05:30 GMT
From: enterpoop.mit.edu!mojo.eng.umd.edu!chuck@uunet.uu.net
To: info-hams@ucsd.edu

References <9301051454.AA02438@tix.timeplex.com>,
<1ic7vjINNjg9@rave.larc.nasa.gov>, <rrgd50-050193130047@222.5.80.3>ng.umd
Subject : Re: 1200Mhz is not a microwave band!

In article <rrgd50-050193130047@222.5.80.3> rrgd50@email.sps.mot.com (Chris
Terwilliger) writes:
>> In article <9301051454.AA02438@tix.timeplex.com> taylor@tix.timeplex.COM (Seth
Taylor) writes:
>> >Since so called "microwave ovens" operate in the UHF designation
>> >frequency range why don't we call them a "UHF" ? Think about that
>> >one.
>>
>
>by the way...has anyone ever used tried to modulate old oven parts???
>Seems like a good project for someone with an oven they don't use any
>more...

Magnetrons are seriously noisy in both frequency and in amplitude. The power
supplies in the ovens are typically 1/2 wave rectified and unfiltered.
About all that magnetrons are good for is heating and high power pulse
emissions such as radar.

73,

Chuck Harris - WA3UQV
chuck@eng.umd.edu

End of Info-Hams Digest V93 #23
****